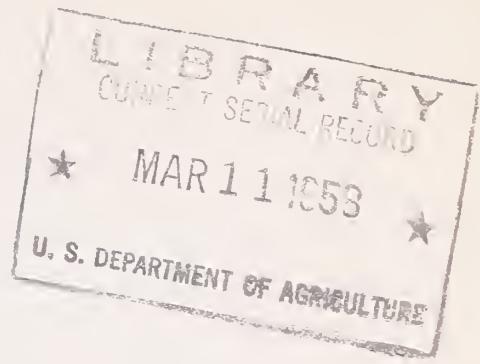


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FEDERAL - STATE COOPERATIVE
SNOW SURVEYS and WATER SUPPLY FORECASTS
for
MONTANA AND NORTHERN WYOMING
(Upper Missouri and Upper Columbia River Basins)

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WATER SUPPLY OUTLOOK
from
SNOW SURVEYS
January 1, 1958

MISSOURI BASIN

The January first 1958 snow-pack measured at a few index courses is roughly 75 to 90 per cent average. At most places measured there is slightly less snow than for the past three years. As usual on January first the pack is well scattered and has no general pattern. Comparison of the accompanying data will verify this fact.

COLUMBIA BASIN

The snow-pack on January first 1958 at most locations on the Flathead Basin is slightly below average. The accompanying data will show that this year is not too different from past years.

MONTANA SNOW SURVEYS - JANUARY 1, 1958

MISSOURI BASIN DRAINAGE BASIN AND SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS						Total Years of Record						
			Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record									
						1957	1956	15-Year Average 1938-52							
<u>JEFFERSON RIVER</u>															
(Rock-Beaverhead)															
Gibbons Pass	13D2	7100	1/3	44.	10.9	11.2	19.5	11.2**	8						
<u>MADISON RIVER</u>															
Hebgen	11E5	6550	1/4	24	5.0	6.6	7.1	5.6	23						
21-Mile	11E6	7150	1/5	29	6.1	9.3	15.2	7.7*	19						
W. Yellowstone	11E7	6700	1/4	20	3.4	5.6	8.9	5.2*	20						
<u>GALLATIN RIVER</u>															
21-Mile	11E6	7150	1/5	29	6.1	9.3	15.2	7.7*	19						
<u>MISSOURI RIVER MAIN STEM</u>															
Chessman Res.	12C5	6200	12/30	9	1.4	0.1	3.6	2.1	22						
Pipestone Pass	12D1	7200	1/2	12	2.2	-	0.5	-	2						
Tenmile, Lower	12C2	6250	12/29	17	2.7	2.2	5.4	2.8	22						
Tenmile, Middle	12C3	6800	12/29	16	4.7	3.9	8.3	5.0	23						
Tenmile, Upper	12C4	8000	12/28	28	5.6	5.2	9.8	5.6	23						
(Marias River)															
Marias Pass	13A5	5250	1/3	30	8.0	8.4	8.8	7.8	23						
<u>UPPER YELLOWSTONE</u>															
Cooke City	10D7	7400	12/30	19	3.0	3.5	5.9	4.1**	11						

* Less than 15 years in 1938-52 period. Average for 15 years nearest the base period

** Average for period of record

MONTANA SNOW SURVEYS - JANUARY 1, 1958

COLUMBIA BASIN DRAINAGE BASIN AND SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS					Total Years of Record	
			1958		Past Record				
			Date of Survey	Snow Depth (In.)	Water Content (In.)	Water Content (In.)	15-Year Average 1938-52		
<u>FLATHEAD RIVER</u>									
Coyote Hill	13B10	4200	12/31	23	4.8	4.8	7.0	5.2** 6	
Desert Mountain	13A2	5600	1/4	28	5.7	6.4	8.5	6.0** 8	
Marias Pass	13A5	5250	1/3	30	8.0	8.4	8.8	7.8 23	
Spotted Bear Mt.	13B2	7000	1/3	24	5.4	5.9	7.9	-- 2	
Trout Lake	13A12	3600	1/3	27	5.7	4.9	6.6	-- 3	
Twin Creeks	13B11	3580	1/2	22	4.1	3.5	4.8	-- 2	
<u>CLARK FORK BASIN</u>									
Coyote Hill	13B10	4200	12/31	23	4.8	4.8	7.0	5.2** 6	
Chessman Res.	12C5	6200	12/30	9	1.4	0.1	3.6	2.1 22	
Fish Lake, Idaho	21B4	5000	12/31	74	15.9	17.6	27.2	-- 4	
Lubrecht Forest #6	13C8	5400	1/2	12	1.6	1.1	3.7	1.6** 7	
Pipestone Pass	12D1	7200	1/2	12	2.2	--	5.0	-- 2	
Storm Lake	13C7	7780	1/4	24	5.6	6.0	10.6	-- 2	
Tenmile, Lower	12C2	6250	12/29	17	2.7	2.2	5.4	2.8 22	
Tenmile, Middle	12C3	6800	12/29	26	4.7	3.9	8.3	5.0 23	
Tenmile, Upper	12C4	8000	12/28	28	5.6	5.2	9.8	5.6 23	
TV Mountain	14B1	6800	12/30	36	7.5	8.2	--	-- 1	
#Lookout	15B2	5250	12/30	79	18.9	15.6	27.0	18.1** 8	
<u>BITTERROOT</u>									
Gibbons Pass	13D2	7100	1/3	44	10.9	11.2	19.5	11.2** 8	

** Average for period of record

Adjacent Basin

STATUS OF RESERVOIR STORAGE
MISSOURI RIVER IN MONTANA
January, 1958

BASIN & STREAM	RESERVOIR	USABLE CAPACITY 1000 A.F.	USABLE STORAGE - 1000 ACRE FEET				1938-52 AVG.	YRS.
			1958	1957	1956			
<u>MISSOURI RIVER BASIN</u>								
Beaverhead	Lima	84.0	27.1	7.1	19.9	33.5*	16	
Madison River	Hebgen Lake	345.0	157.4	156.5	184.9	241.6	22	
Madison River	Ennis Lake	41.0	38.7	38.0	31.7	34.1	22	
Hyalite Creek	Middle Creek	8.0	3.5	2.8	3.0	3.2**	6	
Missouri River	Canyon Ferry	2043.0	1779.0	1589.0	1646.0	135.2**	5	
Missouri River	Hauser Lake & Lk. Helena	62.5	63.8	60.8	60.2	44.2*	18	
Missouri River	Lake Helena	10.4	10.9	9.8	9.6	6.2**	10	
Missouri River	Holter Lake	81.9	55.4	73.5	50.6	58.4	22	
N.Fk. Sun River	Gibson	105.0	26.5	38.6	69.2	55.1	22	
N.Fk. Sun River	Willow Creek	32.3	18.8	22.9	26.7	12.5	22	
N.Fk. Sun River	Pishkun	32.0	12.7	17.0	16.8	15.6	22	
Tiber	Marias	1316.0	620.6	647.8	51.5	--	2	
Birch Creek	Swift	30.0	15.2	21.2	21.0	18.2	22	
Dupuyer & Birch	Lake Francis	112.0	94.2	90.0	92.5	72.5	22	
Judith River	Ackley Lake	5.8	4.4	--	4.2	4.2	18	
Missouri River	Ft. Peck 3/	19410.0	7584.0	6014.0	5294.0*	10520.0*	17	
Milk River	Fresno	127.2	60.4	78.0	70.0	55.8	18	
Milk River	Nelson	66.8	53.9	53.0	41.4	29.6	22	
W. Rosebud Cr.	Mystic Lake	20.8	13.3	7.9	9.5	11.1	22	
Tongue River	Tongue River	73.9	9.0	9.9	18.8	8.2**	17	
Swiftcurrent Cr.	Sherburne Lk.	66.1	16.8	16.2	19.0	17.3	22	
<u>MISSOURI RIVER BASIN - WYOMING</u>								
Shoshone River	Buffalo Bill	440.0	213.2	143.9	139.7	270.8	23	
Wind River	Boysen	408.6	412.5	240.6	81.9	278.7**	6	
Wind River	Pilot Butte	31.6	11.3	9.2	11.7	12.9	22	
Bull Creek	Bull Lake	152.0	86.4	76.0	72.6	63.9*	19	
Belle Fourche	Key Hole	190.0	11.0	12.5	19.4	11.3**	5	
<u>MISSOURI RIVER BASIN - NORTH DAKOTA</u>								
Heart River	Heart Butte	54.8	57.6	44.0	46.8	51.8**	7	
Heart River	Dickerson	4.3	4.3	3.2	3.0	3.7**	6	
Missouri River	Garrison Lk.	13805.0	4692.0	602.0	524.0	--	3	
<u>MISSOURI RIVER BASIN - SOUTH DAKOTA</u>								
Belle Fourche	Belle Fourche	185.0	--	28.4	69.8	--	2	
Cheyenne River	Angostura	160.0	59.0	25.4	77.2	--	2	
Cheyenne River	Deerfield	15.1	10.7	8.6	10.3	--	4	
Grand River	Shadehill	84.0	80.0	134.1	128.9	134.0**	5	
Missouri River	Ft. Randall	2401.6	992.1	667.1	1629.0	--	3	

* Less than 15 years in 1938-52 period. Average for 15 years nearest the base period

** Average for period of record

3/ Gross contents including 617,000 A. F. dead storage

STATUS OF RESERVOIR STORAGE
COLUMBIA RIVER IN MONTANA
January, 1958

BASIN & STREAM	RESERVOIR	USABLE CAPACITY 1000.A.F.	USABLE STORAGE - 1000 ACRE FEET			
			1957	1956	1938-52 AVG.	YRS.
<u>COLUMBIA RIVER BASIN</u>						
Flint Creek	Georgetown Lk.	31.0	23.2	21.1	23.8	35.5*
S. Fk. Flathead	Hungry Horse	3500.0	2103.0	1983.0	3029.0	1787.0**
Flathead River	Flathead Lake	1791.0	1279.0	996.7	925.5	938.0
Flathead River <u>6/</u>	Camas Res.	42.8	25.5	29.2	33.8	19.6*
Flathead River <u>7/</u>	Mission Valley	98.6	16.3	27.9	28.6	32.4*

* Less than 15 years in 1938-52 period. Average for 15 years nearest the base period

** Average for period of record

6/ Camas Reservoirs are shown as a sum of (4) small reservoirs on the west side of Flathead Lake located on Dry Creek and Little Bitterroot River

7/ Mission Valley Reservoirs are shown as a sum of (8) small reservoirs located south and east of Flathead Lake. Both Camas and Mission Valley reservoirs are operated by the Indian Irrigation Service.

